

**Drawing Corrections**

Please accept the attached replacement drawing sheets 2/4 and 4/4 containing new corrected drawing Figures 2 and 6 in addition to unchanged original drawing Figure 3.

**REMARKS**

The November 28, 2007, Office action objected to the Drawings and the Specification and rejected claims 1-3, 5, 6, 10, 12, 17 and 19. To expedite prosecution of this case, this Amendment and Response amends the Specification and submits replacement drawing sheets 2/4 and 4/4 containing new corrected drawing Figures 2 and 6. Support for the amendments may be found in the originally filed specification, claims and figures; no new matter has been introduced. After entry of this amendment, claims 1-3, 5, 6, 10, 12, 17 and 19 remain pending in the application, including 2 independent claims. In view of the amendments and remarks presented in this paper, reconsideration of the application is respectfully requested.

**Objections to the Specification**

The November 28, 2007, Office action objected to the Specification based on the informality that it used reference numeral 82 to designate both “drilling” and “plate valve.” With this amendment, Applicants have amended the Specification at pages 17 and 18 to properly refer to the plate valve member using reference numeral 83. Corresponding corrections have been made to the drawings. No new matter has been introduced. Reconsideration and withdrawal of this objection are requested.

**Objections to the Drawings**

The November 28, 2007, Office action objected to Drawing Figure 2, requiring a legend be added designating the Figure as depicting Prior Art. With this amendment, Applicants submit replacement drawing sheet 2/4 designating Figure 2 as Prior Art. No new matter has been introduced. Reconsideration and withdrawal of this objection are requested.

The November 28 Office action also objected to the Specification for using reference numeral 82 to designate both “drilling” and “plate valve.” With this amendment, Applicants submit replacement drawing sheet 4/4 including the proper designation of 82 to identify the plate valve member in accordance with the revisions to the Specification. No new matter has been introduced. Entry of the replacement drawing and reconsideration and withdrawal of this objection are requested.

### Claim Rejections under 35 USC §102

In the November 28, 2007, Office action, the Examiner rejected claims 1-3, 5, 6, 10, 12, 17, and 19 under 35 USC 102(b) as being anticipated by Pataki et al (US 5,396,926). For the following reasons, reconsideration and withdrawal of these rejections are respectfully requested.

Applicants traverse the Examiner's rejection and respectfully submit that Pataki fails to anticipate all of the elements of Applicants' independent Claims 1 and 17, which both require **a restricted flow path for restricting the rate of flow of fuel from the control chamber to the low pressure fuel drain when the control valve member is moved from the first position to the second position, wherein the restricted flow path comprises a restricted flow passage being located between the first seating and the second seating.** Neither Pataki nor any other prior art reference discloses this feature, and thus does not anticipate Applicants' independent claims.

More specifically, the Examiner has interpreted Pataki's valve passage (8) as providing a source of high pressure fuel. However, it is apparent from the Pataki written description (see, e.g., Pataki Specification, column 9, lines 9-13) that the valve passage (8) is actually connected to a load device, such as a hydraulic cylinder or a fuel injection nozzle, so the passage (8) cannot be interpreted as a *source* of high pressure fuel. It is clear from Pataki the source of high pressure fuel is actually Pataki's valve passage (6) (see, e.g., Pataki Specification, column 8, lines 58-64). In addition, the Examiner has interpreted Pataki's seating (44) as anticipating Applicants' first seating. The Examiner, however, also relies on the same Pataki seating (44) to support the proposition that Pataki discloses that the "first seating is defined by a surface of the bore provided in the valve housing." These applications of the Pataki seating so as to support anticipation arguments relative to both Applicants' first seating element and the limitation that the first seating be defined by a surface of the bore provided in the valve housing are inconsistent with one another.

Moreover, even if the above inconsistencies were to be overcome somehow, Pataki still does not anticipate Applicants' invention as described in independent claims 1 and 17. First, Applicants respectfully submit that the source of high pressure fuel in Pataki is shown as its valve passage (6). In addition, the low pressure fuel drain of Pataki is its self-described

“drain passage”, referred to as valve passage (10). Next, the control chamber in Pataki can only be interpreted as represented by the combination of Pataki’s valve passage (8) and annular recess (40). In Pataki, when the valve member (12) is engaged with the valve seat (38), the annular recess (40) and the valve passage (8) communicate with the high pressure fluid supply passage (6) via the valve seat (44). Also, the valve seat (38) is defined by a surface of a bore provided in the valve housing (2). Therefore, since Applicant’s claims require that when the valve member is engaged with the first seating, the control chamber also communicates with the source of high pressure fuel, it is the valve seat of Pataki, if anything, that should be equated to Applicants’ “first seating.”

Finally, in Pataki, when the valve member (12) is engaged with the valve seat (44), fuel in the valve passage (8) is able to flow to the low pressure drain passage (10) via the annular recess (40). Therefore, since when Applicants’ valve member is engaged with the second seating, fuel must be able to escape from the control chamber along the passage to the low pressure drain, it is only the valve seat (44) of Pataki that can be equated with Applicant’s second seating. As a result, it cannot be said that Pataki discloses, teaches, or even vaguely suggests **a restricted flow path for restricting the rate of flow of fuel from the control chamber to the low pressure fuel drain when the control valve member is moved from the first position to the second position, wherein the restricted flow path comprises a restricted flow passage being located between the first seating and the second seating.**

To elaborate, Applicants’ invention provides a restriction that acts to resist flow from the control chamber (i.e., from a high pressure supply) to the first seat. Since the restriction is between the two seats, the restriction is by necessity upstream of the first seat, and the flow rate is reduced before it reaches the first seat. Pataki, on the other hand, provides no such restriction into fuel flow from the high pressure supply to the control chamber. In Applicants’ invention, the restriction acts to reduce the possibility of valve dithering.

Accordingly, Applicants respectfully submit that Claims 1 and 17 are allowable. Since Claims 2-3, 5, 6, 10, 12, and 19 variously depend from Claim 1, claims 2-3, 5, 6, 10, 12, and 19 are also allowable. Reconsideration and withdrawal of these rejections are requested.

### **Claim Rejections under 35 USC §103**

In the November 28, 2007, Office action, the Examiner rejected claims 17 and 19 under 35 USC 103(a) as being unpatentable over Pataki in view of Harcombe (US 6,889,918). For the following reasons, reconsideration and withdrawal of these rejections are respectfully requested.

As discussed above, Applicants have traverse the Examiner's rejections under section 102 in regard to Pataki and respectfully submit that Pataki in view of Harcombe similarly cannot obviate claims 17 and 19. As discussed fully above, Pataki and Harcombe, both alone and in combination, fail to anticipate all of the elements of Applicants' independent Claims 1 and 17, which both require **a restricted flow path for restricting the rate of flow of fuel from the control chamber to the low pressure fuel drain when the control valve member is moved from the first position to the second position, wherein the restricted flow path comprises a restricted flow passage being located between the first seating and the second seating**. Neither Pataki nor Harcombe nor any other prior art reference, alone or in combination, discloses this feature, and thus does not anticipate Applicants' independent claims.

Again, Applicants' invention provides a restriction that acts to resist flow from the control chamber (i.e., from a high pressure supply) to the first seat. Since the restriction is between the two seats, the restriction is by necessity upstream of the first seat, and the flow rate is reduced before it reaches the first seat. Pataki, on the other hand, provides no such restriction into fuel flow from the high pressure supply to the control chamber. In Applicants' invention, the restriction acts to reduce the possibility of valve dithering.

Accordingly, Applicants respectfully submit that Claims 1 and 17 are allowable. Since Claim 19 depends from claim 1, Claim 19 is also allowable. Reconsideration and withdrawal of these rejections are requested.

### **Double Patenting**

In the November 28, 2007, Office action, the Examiner rejected claims 1-3, 5, 6, 10, 12, 17, and 19 on grounds of the prohibition against obviousness type double patenting. The Examiner alleged that the claims are unpatentable over claims 1-10 of US Patent no.

6,889,918 in view of Pataki. In support of that rejection, the Examiner asserted that Pataki teaches that a restricted area is provided between first and second seating portions. For the following reasons, reconsideration and withdrawal of these rejections are respectfully requested.

As discussed above, Applicants have traverse the Examiner's rejections under section 102 in regard to Pataki and respectfully submit that Pataki in view of Harcombe similarly cannot obviate Applicants' claims. As discussed fully above, Pataki and Harcombe, both alone and in combination, fail to anticipate all of the elements of Applicants' independent Claims 1 and 17, which both require **a restricted flow path for restricting the rate of flow of fuel from the control chamber to the low pressure fuel drain when the control valve member is moved from the first position to the second position, wherein the restricted flow path comprises a restricted flow passage being located between the first seating and the second seating**. Neither Pataki nor Harcombe nor any other prior art reference, alone or in combination, discloses this feature, and thus does not anticipate Applicants' independent claims.

Again, Applicants' invention provides a restriction that acts to resist flow from the control chamber (i.e., from a high pressure supply) to the first seat. Since the restriction is between the two seats, the restriction is by necessity upstream of the first seat, and the flow rate is reduced before it reaches the first seat. Pataki, on the other hand, provides no such restriction into fuel flow from the high pressure supply to the control chamber. In Applicants' invention, the restriction acts to reduce the possibility of valve dithering. Accordingly, Applicants respectfully submit that Claims 1 and 17 are allowable. Since Claims 2-3, 5, 6, 10, 12, and 19 depend from claim 1, they are also allowable. Reconsideration and withdrawal of these rejections are requested.

### CONCLUSION

In view of the foregoing, Applicants request the withdrawal of the objections to the drawings and the specification and the rejections to the claims. Reconsideration of the application and allowance of all pending claims is earnestly solicited. Accordingly, the Examiner is requested to reconsider and allow claims 1-3, 5, 6, 10, 12, 17, and 19 and to pass the case to issue.

Should the Examiner wish to discuss any of the above in greater detail or deem that further amendments should be made to improve the form of the claims, the Examiner is invited to contact the undersigned at the Examiner's convenience.

Please charge any necessary fees, including any extension of time, or any other fee deficiencies to Delphi Technologies, Inc., Deposit Account No. 50-0831.

Respectfully submitted,

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